

Unit

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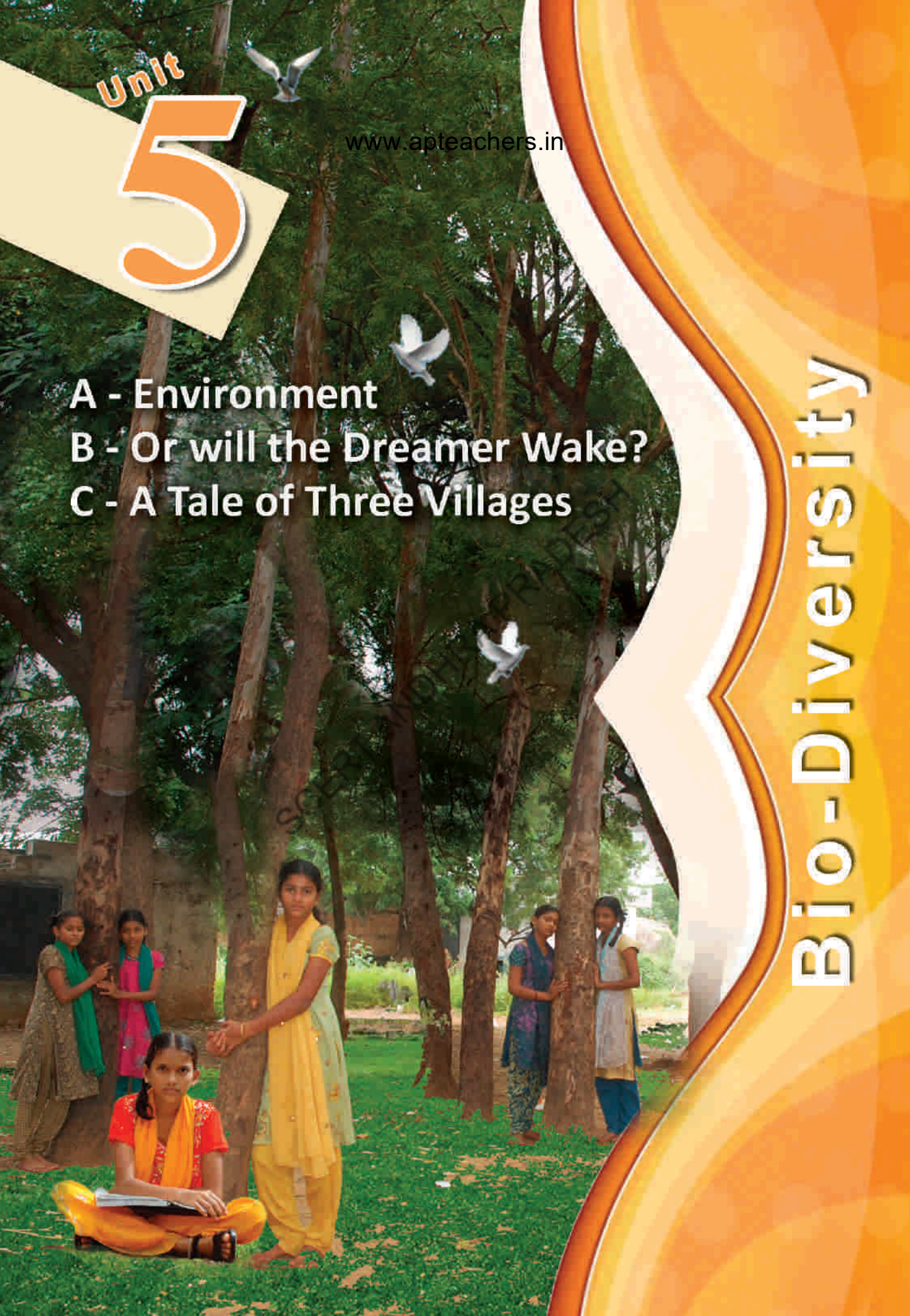
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A - Environment

B - Or will the Dreamer Wake?

C - A Tale of Three Villages

Bio-Diversity



5. Bio-Diversity

Look at the Pictures and answer the questions that follow.

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1. What do you see in the first picture? Do you like it? If not, why?
2. How is the second picture different from the first? Do you feel good about it? Give reasons for your view.

(Interview with Wangari Maathai, Environmental Activist and Nobel Prize winner)

Wangari Maathai started the Green Belt Movement and also fought for equal rights for women in Africa. She is the first African woman to win the Nobel Peace Prize.

Read the excerpts from her interview with Nippon Hoso Kyokai (NHK) Radio (Japan)(2004 Dec-19).

NHK Radio : How did you become aware of the environment?

Wangari Maathai: From the time we started, we were trying to respond to the basic needs of people in the rural areas; and people were asking for clean drinking water, for food, for energy (which is mostly firewood), for building material, for



fodder for the animals. And all these come from the land. So we knew that what the people in the rural areas were asking for had to do with the environment. They did not have those things because the environment was degraded. So, from the very beginning we understood that we have to rehabilitate the environment.

The forested mountains were the source of water and the source of rain, so when you deforest, you cause a shortage of water and a change of rainfall patterns and therefore people are not able to get food and water. Therefore, in order for them to have good environment that can sustain their livelihoods, it is important to have a government that accounts to them, that protects them, that protects their interests, that is concerned about their lives.

NHK Radio : How is peace connected to a good environment?

W M : Many wars that are fought in the world are fought over natural resources. Some wars are fought because the environment is so degraded that it is not able to support communities and so they fight over the little that is left. Others are fought because some people want to take a lot of the resources, to control them, and to keep many other people out.



Now whether this happens at the national level or at the regional level, or even at the global level, sooner or later there is discontent; and when that discontent is strong enough, there is conflict. So good management of the natural resources, equitable distribution of these resources, is important for peace. At the same time, good management of the natural resources is not possible if you do not have democratic space, respect for human beings, respect for human rights, giving other people dignity.

That is why the three themes are related, like the African stool, with three legs and the basin on which you sit. The three legs: one leg is peace, the other leg is good governance, the third leg is sustainable management of resources. When you have those three legs, now you can put the basin, which is development. And if you try to balance that stool without those three, it won't happen.

We have not shared our resources equitably. We have allowed some people, especially those in power, to acquire a lot at the expense of the majority. And we have also engaged in conflict.

NHK Radio : What was the environment like when you were young, and how did you go about saving it?

W M. : When I was a child, which is almost more than fifty years ago, the environment was very pristine, very beautiful, and very green. We were a British colony, and the British government at that time started to clear cut the indigenous forests in our forested mountains because they wanted to establish commercial plantations of exotic species of trees such as

the pines from the northern hemisphere and the eucalyptus from Australia. These trees are very nice, they grow tall, and they grow very fast. When they grow they destroy all the local biological diversity. All the flora and fauna disappeared. So although we were getting commercial timber for the growing timber industry, we also destroyed our local flora and fauna.



As a result, these forests, which were the water towers, were no longer able to contain the water, so when the rains fell the water ran downstream and ended up in the lakes and oceans instead of going down into the underground reservoir so that it could come back to us in the form of rivers. One thing we noted is that not only did the rain patterns change, became less, but also the rivers started drying up. We lost our local biological diversity. So that's a lot of damage to our environment.

That is why in 1975, at the very first United Nations Conference for Women in Mexico, many of the women were saying, "We need food, we need water, we need clean drinking water, we need fodder for our animals." And I was wondering, what has happened? These are things that were there twenty years ago when I was a child. The environment had changed; and that's when I started this campaign to restore the vegetation and to restore the land and to rehabilitate the forests.

NHK Radio : What happened when you started working with the women?



W M.: Well, the first time when I told them, "Let us plant trees", the women said they did not know how to plant trees. So I asked the foresters to come and teach them, but they were very complicated-they are professionals. It became very complicated for ordinary illiterate women so I told the women, "We shall use our



common sense, and just do what we do with other seeds." Women work in the farms. They're the ones who plant. They're the ones who cultivate. They're the ones who produce food, so I told them that seeds of trees are like any other seeds. So if they were to treat these tree seeds the same way they treat other seeds of food crops, there is no difference. I told them to look for old broken pots even and put

seeds there. They will germinate and they will know these are the seedlings from the seeds they planted and we gave them plastic bags to be able to put those seedlings and to nurture them and when they were about half a meter long then they could go and transplant them on their farms.

In the beginning it was difficult, but they soon gained confidence and they became very competent foresters. So I called them "Foresters without Diplomas".

NHK Radio: Why do you think they responded so well to your message?

W M: It was a need. When the women said they needed firewood and building material, we responded to that need. Plant trees; then you will have trees for firewood. In the tropics, trees grow very fast. In five to ten years these trees serve as firewood, as building materials.

Once we had planted those trees, we saw the need for them to understand why we have to have good governance; so it became important to give them civic education so that they could understand how we govern ourselves, why we govern ourselves the way we govern ourselves, why we are managing our environment the way we are managing it. Because we were dealing with the environment, we gave them education both in civics and also in environment. That made them understand clearly why they should take up the responsibility of protecting their environment-that it was not the responsibility of the government or the responsibility of somebody else to come and rehabilitate their environment on their own land. It's them; it's their responsibility.

NHK Radio : What transformations did you see?

WM: One of the bigger transformations that I saw was that ability of an ordinary, illiterate woman to get to understand and to be able to plant trees that in five or ten years became big trees and she was able to give herself energy; to be able to sell those trees and give herself an income; to be able to feel confident that she had done something for herself. That sense of pride, sense of dignity that they are not begging, that they are doing things for themselves was very empowering. That transformation was very powerful.

The other is the transformation of the landscape. Places where there was dust, there are no more dust. There are trees, even birds and rabbits. They come back and they make the environment very beautiful. There is a shade and sometimes even dry springs come back because the water is not running, the water is going into the ground. Very profound transformation.

And the other transformation that I saw was the willingness of the people to fight for their rights; to decide that they have a right to a good clean environment; to decide that they will fight for their forests, they will protect their forests, and they will not allow corrupt leaders to take their public land.

NHK Radio : How do you think you can influence the rest of Africa?

WM: Our efforts will inspire other people to stop wasting their resources and their youth in wars and instead engage in creating a peaceful environment, more peaceful states.

I'm very happy about the fact that now in Africa you see new efforts of ensuring that Africans engage in dialogue, that they invest in peaceful negotiations for conflicts, that we manage our environment. We must restore our environment and try to ensure that we do not fight, because we are allowing the environment, especially the land, to be degraded; and then we fight over agricultural land and grazing land. I see a lot of hope in what is happening in Somalia, what is happening in the Sudan, what is happening in West Africa. I see a lot of African leaders encouraging each other to engage in dialogue.

NHK Radio : What is the one thing we can do ?

WM: For me, my greatest activity is to plant a tree. I think that a tree is a wonderful symbol for the environment and when we plant a tree we plant hope. We plant the future for ourselves, for our children, for the birds. We plant something that will last, long after we are gone.

Source: www.gbmna.com/a.php?id=103

Glossary

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- Green Belt Movement (*n*): a movement to protect environment
- fodder (*n*) : food for farm animals
- forested (*adj*) : covered with forests
- pristine (*adj*) : fresh or clean
- indigenous (*adj*) : native
- biological diversity (*n*) : the variety of plants and animals in a particular place
- exotic species (*n*) : unusual plants

Comprehension

I. Answer the following questions.

1. How are people's basic needs connected with the environment?
2. Wangari Maathai has described the environment of her childhood in the interview. Is the environment of her childhood different from the environment you live in? If yes, in what ways?
3. According to Maathai, how are women responsible for the protection of the environment?
4. What is the specific message of Wangari Maathai?
5. List the transformations that Wangari Maathai was able to bring about over the years. Which one of them is the biggest in your opinion?
6. Maathai said, "When we plant a tree we plant hope." What does she mean by this?
7. Wangari Maathai in her interview with NHK Radio often repeats phrases/sentences probably to emphasize her point.

For example : referring to women-groups she says:

They're the ones who plant.

They're the ones who cultivate.

They're the ones who produce food.

Pick out from the text (of her interview) such repetitions and write them down and find out what she is emphasizing in each context.

II. Pick out the correct choice in each of the following:

1. We have allowed some people, especially those in power, to acquire a lot at the expense of the majority.

The underlined phrase means:

- a) with a loss or damage to the majority
 - b) by spending money on the majority
2. What was the implication of the growth of exotic trees, such as the pines and the eucalyptus for the environment ?
 - a) It increases timber business.
 - b) Forests were not able to contain water.
 3. When women started working with Maathai, they learnt _____ .
 - a) to become very competent foresters.
 - b) to grow and transplant seedlings.
 4. Maathai's efforts will inspire the people _____ .
 - a) to stop wasting their resources.
 - b) to use their resources miserly.

I. Replace the underlined words in the following sentences with the words from the box that have the same meaning.

transplanted, vegetation, exotic, negotiation, restore,
equal rights, sustain, degrades, equitably, rehabilitation

1. The government is trying to bring back normalcy in the riot-hit areas of the city.
2. Wangari Maathai fought for the same privileges for men and women in Africa.
3. I cannot hold my attention on any subject for a long time.
4. The poster is offensive and disrespects women.
5. Some people argue that the wealth in this world should be distributed fairly and reasonably among all.
6. After certain amount of growth the seedlings have to be taken out and shifted elsewhere for further growth.
7. She travels to all kinds of exciting locations all over the world.
8. The Tirumala hills are covered by lush green plants.
9. The judge advised the disputing parties to settle through discussion.
10. The alcohol addict has to be put in a recovery centre for becoming a normal person.

II. Read the following sentence and notice the underlined words.

Wangari Maathai is an environmentalist and has a lot of interest in ecology.

In the above sentence 'environmentalist' stands for 'a person who is concerned about the natural environment and wants to improve and protect it'. 'Ecology' stands for 'the study of relation of animals and plants to their surroundings'. 'Both the words stand for many words. So they are called 'one-word substitutes'.

What are the following persons called?

1. A person who studies the human race, especially of its origins.
2. A person who studies the remains of buildings and objects found in the ground.
3. A scientist who studies the earth, the origin of the history of rocks.
4. A person who studies birds scientifically.
5. A scientist who studies Physics.
6. A doctor who studies and treats heart diseases.
7. A person who believes in solving human problems with the help of reason.
8. A scientist who studies animals and their behaviour
9. A scientist who studies the mind of a person.
10. A person who solves problems in a practical and sensible way.
11. A person whose job is to take care of people's teeth.
12. A person who studies languages.



III. Fill in the blanks with the appropriate forms of the underlined words.

1. It is everyone's duty to keep the environs clean, with the co-operation of the citizens the government can protect the _____.
2. The government of the day should show its capability by providing good _____ to people.
3. Wangari Maathai was successful in transforming women of Africa and the _____ made her happy.
4. We must restore our environment and always try to ensure its _____.
5. Natural resources in this world can be sustained if only there is _____ management of them.
6. Wangari Maathai is an environmental activist. Her _____ led her to win Nobel Peace Prize.
7. We were trying to respond to the basic needs of the people in the rural areas. Our _____ was well received by them.
8. In a developed country, the _____ is balanced.

1. Wangari Maathai led the movement. She won the Nobel Prize.
2. Leading the movement, Wangari Maathai won the Nobel Prize.

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In the example (1) there are two sentences. There is a verb in each sentence and each verb has a tense (a tense marker). We can identify the tense of the verbs by looking at them. Both of them are in the past tense since they are in the past tense having 'V2' forms ('led' and 'won'). These are called 'finite verbs' as they have tense. Whereas in example (2), there are two clauses: '**Leading the movement**' and '**Wangari Maathai won the Nobel Prize**'. The verb in the first clause has no tense while the one in the second clause has a tense i.e., the past tense.

The verb with tense is known as 'finite verb' and the clause that has a finite verb is known as a 'finite clause'. In the same way, the verb that has no tense is known as a 'finite verb' (leading) and the clause is called a 'non finite clause'

Non-finite clause depends on the finite clause for its tense.

Leading the movement, Wangari Maathai won the Nobel Prize.

↓

Non - finite clause

↓

Finite clause

We should note that a non-finite clause has no subject, and we only can decide the tense of a non-finite clause from the finite clause.

A. Underline the non-finite clauses in the following sentences.

1. Born in London, he became the citizen of the U.K.
2. Having done his homework, he went out to play.
3. Recognized by his boss, he got an appreciation letter.
4. Encouraged by his father, Ravi got distinction in his final examination.
5. With the tree grown tall, we get more shade.
6. We left the room and went home to search for the books.
7. Do we have the money to buy that car?
8. We were not able to get away until now.
9. Having read the book, I returned it to the library.
10. Jumping on his horse, the farmer rode to the market.

B. Look at how the following sentences have been rewritten to include non-finite clauses.

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1. Vincent Van Gogh, who was born in Holland in 1853, is one of the world's most famous painters.

Born in Holland in 1853, Vincent Van Gogh is one of the world's famous painters.

2. Despite being his talent was unrecognized throughout his life, it was much appreciated after his death.

Although unrecognized throughout his life, his talent was much appreciated after his death.

3. After he had failed in every career he had attempted, Van Gogh first turned to art to express his strong religious feelings.

Having failed in every career he had attempted, Van Gogh first turned to art to express his strong feelings.

Rewrite the following sentences to include non-finite clauses.

1. After he had decided to become a painter, in about 1880, he started to paint studies of peasants and miners.
2. During the next few years, which are known as his 'Dutch period', he produced paintings with rather dark greenish-brown colours.
3. In 1886, when he went to Paris to visit his brother Theo, he was immediately attracted to the Impressionist work he saw there. He decided to stay in Paris and continued his painting there.
4. He was encouraged by Pissaro to use more colour in his pictures and his subsequent paintings were bright and immensely colourful.
5. After Van Gogh had moved to Arles in the south of France, in 1888, he worked frantically.
6. This frenzied activity, which was interrupted by bouts of deep depression and despair, produced the majority of his most famous paintings.
7. One of these, which is called Self Portrait with Bandaged Ear, shows Van Gogh. He was wearing a bandage after he had cut off his ear. A year later, in 1890, he committed suicide.
8. A lot is known about Van Gogh's life and his feelings because of the hundreds of letters, which were written by him to his brother Theo and others.

9. His brother always encouraged him in his work because he believed in Van Gogh's genius. He was the person closest to Van Gogh.

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II. Reported speech

Apart from the ground rules that are laid down for reporting in traditional grammar books, there are certain other principles that are to be followed to make the speech appealing.

Suppose you want to tell somebody what Ram said. There are two ways of doing this:

You can repeat Ram's words (direct speech).

Ram said, 'I am feeling ill.'

Or you can use reported speech:

Ram said that he was feeling ill.

It is not always necessary to change the verb in reported speech. If you report something and the situation hasn't changed, you need not change the verb to the past:

Direct : Neelima said, 'My new job **is** very interesting.'

Reported : Neelima said that her new job **is** very interesting.

(The situation hasn't changed. Her job is still interesting.)

Direct : Ravi said, 'I **want** to go to New York next year.'

Reported : Ravi said that he **wants** to go to New York next year.

(Ravi still wants to go to New York next year.)

You can also change the verb to the past:

Neelima said that her new job **was** very interesting.

Ravi said that he **wanted** to go to New York the following year.

The past simple (did/saw/knew etc.) can usually remain the same in reported speech, or you can change it into past perfect (had done/had seen/had known etc.)

- Direct** : Ravi said: 'I woke up feeling ill, so I didn't go to work.'
- Reported** : Ravi said (that) he woke up feeling ill, so he didn't go to work.
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or Ravi said (that) he had woken up feeling ill, so he hadn't gone to work.

Look at the following conversation and notice how it is reported.

- NHK Radio : How is peace connected to a good environment?
- Wangari Maathai : Many wars that are fought in the world are fought over natural resources. Some wars are fought because the environment is so degraded that it is not able to support communities and so they fight over the little that is left. Others are fought because some people want to take a lot of the resources, to control them, and to keep many other people out.

Reported speech of the above conversation:

NHK Radio asked Wangari Maathai how peace was connected to a good environment.

She answered that many wars that were fought in the world were fought over natural resources. Some wars were fought because the environment was so degraded that it was not able to support communities and so they fought over the little that was left. Others were fought because some people wanted to take a lot of the resources, to control them, and to keep many other people out.

A. Write the following in Reported Speech:

- NHK Radio : What is the one thing we can do ?
- Wangari Maathai : For me, my greatest activity is to plant a tree. I think that a tree is a wonderful symbol for the environment and when we plant a tree we plant hope. We plant the future for ourselves, for our children, for the birds. We plant something that will last, long after we are gone.

B. Report the following dialogue:

Man : I'm doing a survey on shopping habits.
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Woman : OK. As long as it doesn't take long.

Man : How often do you eat hamburgers?

Woman : Never. I'm a vegetarian. I don't eat any animal products.

Man : Right! Can I just ask you a personal question? Are you wearing leather shoes?

Woman : Yes, I am.

Man : Don't you think that's rather hypocritical?

Woman : No, not really.

Man : Oh, that's amusing.

Writing

You have read the interview with Wangari Maathai. You know how and what type of questions have been asked by the interviewer. Imagine that you have decided to interview someone concerned with environment. You may include the following:

1. issues relating to the environment
2. the causes
3. actions that could be taken to save the environment



Write down this imaginary interview.